



HPGBS™ Technical Data Summary Sheet

Sizes:

- Green-Source Products HPGBS™ panels are available in 4 ft. to 38 ft. widths.
- Thicknesses are available from 3 ½" to 12" before finishes.
- Heights are custom designed according to project specifications.
- Weight for HPGBS™ panels varies according to the structural requirements of the project with a minimum weight of 2 lbs./sf.

Technical Data:

Green-Source Products HPGBS™ panels are custom designed and can be engineered to meet or exceed all building code requirements for the local building authority jurisdiction.

ASTM Testing Standards:

- ASTM A 370 Test Methods and Definitions for Mechanical Testing of Steel Products
- ASTM A 500 Standard Specifications for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
- ASTM A 513 Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing
- A653/A653M-07 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- A787-05 Standard Specification for Electric-Resistance-Welded Metallic-Coated Carbon Steel Mechanical Tubing
- ASTM C36/C36M-03 Standard Specification for Gypsum Wallboard
- ASTM C203-05a Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- ASTM C272-01(2007) Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- ASTM C303-07 Standard Test Method for Dimensions and Density of Preformed Block and Board-Type Thermal Insulation
- ASTM C518-04 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- ASTM D1621-04a Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- ASTM E72-05 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E90-04 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E96/E96M-05 Standard Test Methods for Water Vapor Transmission of Materials
- ASTM E119-08a Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM E2226 - 08 Standard Practice for Application of Hose Stream

Green-Source Products HPGBS™ panels physical properties:

Steel framing members:

- Typical shapes of steel framing members are 1" x 2" galvanized tubular steel, 2" x 2" galvanized tubular steel, or structural C-studs/joists. Framing members shall vary in shape and gauge according to the project's architectural and engineering specifications.
- Minimum steel thickness shall be 20 gauge
- Minimum yield strength shall be 30 ksi
- Minimum galvanized coating shall be G60



Insulation core:

UL certified modified expanded polystyrene (EPS) rigid insulation core shall have a minimum density of .90 pcf TYPE I complying with ASTM C578

Thermal resistance values (R):

Wall Panel Thickness

	9 ¼"	7 ¼"	6"
at 40° F	38	30	25
at 75° F	35	28	23

Roof Panel Thickness

	12"	8"	6"
at 40° F50	33	25	
at 75° F	46	30	23

Fasteners shall be plated to resist corrosion

Sound Ratings for Wall Assemblies

Wall Description	Finished Dimension	STC Rating
6" Green-Source Products HPGBS™ panel with 1 layer 5/8" drywall both sides	7 ¼"	35
7 1/4" Green-Source Products HPGBS™ panel with 1 layer 5/8" drywall both sides	8 ½"	39
7 1/4" Green-Source Products HPGBS™ panel having 1" air gap and 1 layer 5/8" drywall both sides	8 ½"	42
7 1/4" Green-Source Products HPGBS™ panel having 1" air gap filled with 1" Thermafiber® and 2 layers 5/8" drywall both sides	9 ¾"	48
7 1/4" Green-Source Products HPGBS™ panel having 1" air gap filled with 1" Thermafiber® and 2 layers 5/8" drywall one side. RSIC-V® sound isolation clips with hat channel and having 2 1/4" air gap filled with 2 1/4" Thermafiber® and 2 layers 5/8" drywall on one side	11"	59

Fire Rating of Wall Assemblies

Wall Description	Finished Dimension	Fire Rating
7 1/4" Green-Source Products HPGBS™ panel having 1/4" air gap both sides and 1 layer 1/2" drywall one side and 2 layers 5/8" type C drywall one side	9"	1 Hour
7 1/4" Green-Source Products HPGBS™ panel having 1" air gap filled with 1" Thermafiber® and 2 layers 5/8" type C drywall both sides	9 ¾"	1 Hour
7 1/4" Green-Source Products HPGBS™ panel having 1" air gap filled with 1" Thermafiber® and 2 layers 5/8" type C drywall one side. RSIC-V® sound isolation clips with hat channel and 2 1/4" air gap filled with 2 1/4" Thermafiber® and 2 layers 5/8" type C drywall one side	11"	1 Hour